

WHAT IS CLAIMED IS:

1. A wireless headphone apparatus, comprising:
a plurality of light signal receiving units each for receiving a light signal to
5 produce an electric signal having a signal level;
a plurality of light signal limiting units respectively connected with said
plurality of light signal receiving units in one to one relationship, each of said light
signal limiting units operative to allow only an electric signal having a signal level
lower than a predetermined threshold value to pass therethrough and delete an electric
10 signal having a signal level equal to or greater than said predetermined threshold value;
a signal synthesizing unit for synthesizing said electric signals passed through
said light signal limiting units to produce a synthesized electric signal; and
speaker means for outputting a sound in response to said synthesized electric
signal.
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2. A wireless headphone apparatus as set forth in claim 1, in which
said light signal receiving units are constituted by at least two light signal
receiving units.
- 20 3. A wireless headphone apparatus as set forth in claim 1, in which
said speaker means is constituted by a right speaker and a left speaker.
4. A wireless headphone apparatus as set forth in claim 1, in which
said light signal receiving units are placed in the vicinity of said right speaker
25 and said left speaker.
5. A wireless headphone apparatus as set forth in claim 1, in which
speaker means is further constituted by a right speaker, a left speaker, and a
housing having a first axis passing through said right speaker and said left speaker,
30 at least one of said light signal receiving units is placed on a second axis
substantially perpendicular to said first axis and passing through a middle point of said
first axis in equidistantly spaced relationship with said right speaker and said left
speaker.
- 35 6. A wireless headphone apparatus as set forth in claim 1, in which
said speaker means is further constituted by a right speaker, a left speaker, and

a housing having a first axis passing through said right speaker and said left speaker, and a second axis substantially perpendicular to said first axis and passing through a middle point of said first axis in equidistantly spaced relationship with said right speaker and said left speaker,

5 said light signal receiving units are opposing to each other across a plane passing through said first axis and said second axis.

7. A wireless headphone system, comprising:

a light signal emitting apparatus for emitting a light signal; and

10 a wireless headphone apparatus as set forth in claim 1 to 6, and in which each of said plurality of light signal receiving units of said wireless headphone apparatus is operative to receive said light signal emitted by said light signal emitting apparatus.

15 8. A wireless headphone system as set forth in claim 7, in which

said light signal emitting apparatus is provided in a vehicle, and

each of said light signal receiving units of said wireless headphone apparatus is operative to receive said light signal emitted by said light signal emitting apparatus in the vehicle.

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9. A wireless headphone system as set forth in claim 8, in which

said light signal emitting apparatus is provided on a ceiling of the vehicle.